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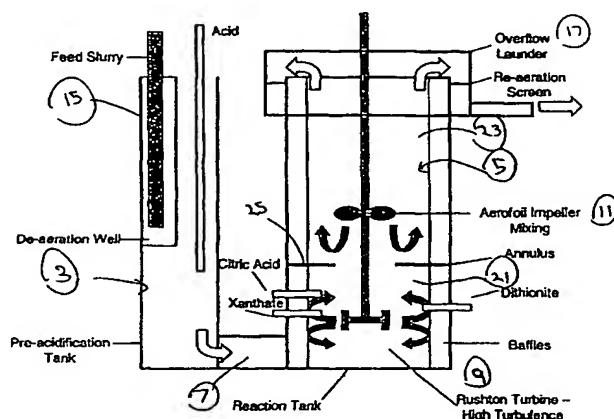
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(54) Title: IMPROVED RECOVERY OF VALUABLE METALS

Fine Ni Conditioning Vessel



(57) **Abstract:** A continuous flotation process and apparatus for iron-containing sulphides in ores and concentrates of ores are disclosed. The process includes adjusting the pH of an aqueous pulp of the ores or concentrates of the ores to be in the range of 6.5-8.5 and thereafter adding a reducing agent to modify an iron hydroxide film on the surface of iron-containing sulphides in the ores or ore concentrates to enable adsorption of a collector onto iron-containing sulphides. The process also includes adding the collector to the pulp prior to, during, or after adding the reducing agent. The process also includes aerating the pulp to increase the pulp potential to a level sufficient to allow collector adsorption onto the iron-containing sulphides and thereafter bubbling gas through the pulp and subjecting the aqueous pulp to froth flotation to produce a froth containing said sulphide containing minerals.